

Map and Cadastre Program Syllabus

I. Semester

Course Code	Course Name	T	U	L	ECTS	K	Clock	Type.
ATI101	Ataturk's Principles and History of Turkish Revolution I	2	0	0	2	2	2	Compulsory
<p>Concepts and Ottoman renewal. European developments, the Industrial Revolution and the French Revolution. New Ottomans, Constitutional Monarchy and Committee of Union and Progress. Constitutional Monarchy Period II, Tripoli and Balkan Wars. The causes of World War I. World War I: The division of the Ottoman Empire. Preparation period of the National Struggle. Congresses. Sivas Congress, Last Ottoman Mebusan Assembly and Misak-ı Milli. GNAT Period: Formation of fronts. Lausanne Treaty</p>								
Course Code	Course Name	T	U	L	ECTS	K	Clock	Type.
HRT101	Vocational Trigonometry	3	0	0	4	3	3	Compulsory
<p>Length measurement units and conversions. Angle units and transformations. Units of area, trigonometric functions of acute angles. Angle function transformations. Small angle relation, three-sided shapes. Basic relations in triangles. Triangle solutions. Four-sided shapes. Trapezoid solutions. Circle solutions Spherical triangle concept. Spherical triangle solutions.</p>								
Course Code	Course Name	T	U	L	ECTS	K	Clock	Type.
HRT103	Vocational Mathematics	4	0	0	4	4	4	Compulsory
<p>Numbers Number systems. Algebra. Polynomials. Solution of systems of equations. Matrix Linear equation solution of systems. Derivative. Derivative applications. Integral. Integral applications.</p>								
Course Code	Course Name	T	U	L	ECTS	K	Clock	Type.
HRT105	Land Surveying-I	3	0	0	4	3	3	Compulsory
<p>Cartography issues, the subject of cadastre. Map, cadastre and title deed relationship. Simple measuring tools. Steel strip Measure of length with a meter. Prismatic measurement. Takeometer and theodolite instruments. Horizontal angle measurement. Methods of measuring pieces of land. Error calculations.</p>								
Course Code	Course Name	T	U	L	ECTS	K	Clock	Type.
HRT107	Land Surveying Practice-I	1	2	0	4	2	3	Compulsory
<p>Making lesson planning. Application of simple measuring tools. Length measurement application with steel tape measure. Prismatic measurement application. Introduction of takeometer and theodolite instruments. Application of takeometer and theodolite instruments. Horizontal angle measurement application. Vertical angle measurement. Application of methods of measuring pieces of land. Error calculations applications.</p>								
Course Code	Course Name	T	U	L	ECTS	K	Clock	Type.
HRT109	Map Drawing-I	2	1	0	3	3	3	Compulsory
<p>Drawing tools. Map drawing special marks. Map underlays. Drawing of pieces of land. Inking. Drawing of detail points. Drawing of equal height curves. Scale change in maps and plans, reproduction of maps.</p>								
Course Code	Course Name	T	U	L	ECTS	K	Clock	Type.
HRT111	Occupational Health and Safety	2	0	0	3	2	2	Compulsory
<p>Development of occupational health and safety concepts and rules. Labor law. Physical risk factors. Chemical risk factors. Biological risk factors. OHS in construction works and mining workplaces. Occupational diseases. Ergonomics. Emergency plans. Work accidents. Work environment surveillance. OHS in electrical work. Personal protective equipment. Risk assessment.</p>								

Course Code	Course Name	T	U	L	ECTS	K	Clock	Type.
<b>TDI101</b>	Turkish Language I	2	0	0	2	2	2	Compulsory
Definition and features of language. Language-nation relationship. Language-culture relationship. Language families, the place of Turkish language among the world languages. Historical development of Turkish language. The current status of Turkish language, historical and contemporary examples, dialect-chive-dialect. Definition of grammar, sections, features of Turkish language. Phonetics, phonological status of Turkish, features and classification of sounds. Spelling rules of Turkish. Punctuation marks. Turkish word structure and affixes, Construction and conjugation suffixes.								
Course Code	Course Name	T	U	L	ECTS	K	Clock	Type.
<b>YDI101</b>	Foreign Language I	2	0	0	2	2	2	Compulsory
Construct sentences using the verb to be and possessive pronouns. Writing and acting out dialogues using countries and nationalities. Learning professions and describing t h e m with short definitions. Learning present tense sentence constructions and asking questions. Asking Wh questions. Expressing likes and dislikes. Learning the English equivalents of food and drinks. Ordering food. Talking about world cuisine. Leisure time activities. Writing and speaking about hobbies. Making a dialog using adverbs of frequency in English. Analyzing a reading passage about basketball and acquiring vocabulary. Writing and describing what people are doing using present tense sentence structure. Understanding and acting out the rules of speaking politely on the phone. Talking about past events using the past tense. Using the verb to be in the past tense. Analyzing a reading passage in the past and present tense and acquiring vocabulary.								
Course Code	Course Name	T	U	L	ECTS	K	Clock	Type.
<b>HRT151</b>	Information and Communication Technology	2	1	0	3	3	3	Elective
Document operations, formatting operations. Document control, printing, table operations. Object operations, advanced features. Macros, customization. Workspace, data entry, formatting operations. Formulas, functions. Graphics operations, data analysis. Printing, macros, customization. Slide objects, show settings. Printing, customization. Internet concepts. Access database.								
Course Code	Course Name	T	U	L	ECTS	K	Clock	Type.
<b>HRT153</b>	Environmental Protection	2	0	0	3	2	2	Elective
Environmental terms. Sectoral environmental problems. Air pollution and precautions to be taken. Effects of air pollution on the environment and human health. Water pollution and precautions to be taken. Effects of water pollution on the environment and human health. Soil pollution and precautions to be taken. The effects of soil pollution on the environment and human health. Noise pollution. Effects of noise on human and environment. Energy. Environmental effects of non-renewable energy sources. Renewable energy sources. Ways to use energy resources economically and efficiently.								
Course Code	Course Name	T	U	L	ECTS	K	Clock	Type.
<b>HRT155</b>	Contact	2	0	0	3	2	2	Elective
Communicating verbally. Communicating in writing. Nonverbal communication. Formal communication. Establishing informal communication. Communicating outside the organization.								
Course Code	Course Name	T	U	L	ECTS	K	Clock	Type.
<b>HRT157</b>	Geographic Information Systems	2	0	0	3	2	2	Elective
Information system concept. The concept and definition of geographic information system. History of geographic information system. Geographic assets and GIS. Geographic information system applications. Geographic information system components. Geographic information system software. Data, data models and spatial data concept. Data acquisition techniques in geographic information system. Map projections and coordinate systems. Urban information systems. Land information systems. Decision support systems.								
Course Code	Course Name	T	U	L	ECTS	K	Clock	Type.
<b>HRT159</b>	Disaster and Risk Management	2	0	0	3	2	2	Elective
Risk and probability in social life and insurance. Detection and evaluation of risk, risk factors in current life. Risks according to their impact areas. Systematic and non-systematic risks. Operational risks. Risk management and its importance in insurance. Risk retention methods. Requirements of insurable risk. Stages of risk management. Risk management in the insurance sector in Turkey: differences in theory and practice. Student presentations.								
Course Code	Course Name	T	U	L	ECTS	K	Clock	Type.
<b>HRT161</b>	Billiards	1	1	0	3	2	2	Elective

Types of billiards. 3 band rules. 8 and 9 ball rules. Snooker rules. Practice 3 bands. Practice 8 and 9 ball. Application Snooker								
Course Code	Course Name	T	U	L	ECTS	K	Clock	Type.
HRT163	Ceramic Design-I	2	0	0	3	2	2	Elective
General information about ceramic art. Preparation of clays used in the shaping of ceramic forms. Preparation of clays used in the shaping of ceramic forms. Shaping with sausage method. Plate shaping with plate method. Vase shaping with plate method. Vase shaping with plate method. Vase shaping with plate method. Decorating and glazing the forms made. On the ceramic surface, basic art elements of point, line, texture research. Shaping the design created with two or three of the taught shaping methods. Analyzing the works of artists working on ceramic art. Biscuit and glazed firing of shaped ceramics.								

## II. Semester

Course Code	Course Name	T	U	L	ECTS	K	Clock	Type.
ATI102	Ataturk's Principles and History of Turkish Revolution II	2	0	0	2	2	2	Compulsory
Political revolutions: Abolition of the Sultanate, proclamation of the Republic, abolition of the Caliphate. Political parties and political events established during the Atatürk period and represented in the Turkish Grand National Assembly. Legal reform and legal order. Revolutions in the field of education. Revolutions in the cultural and social field. Revolutions in the economic field. Turkish foreign policy in Atatürk period (1923-1930). Turkish foreign policy in Atatürk period (1930-1938). Atatürk's principles and complementary principles. Turkey after Atatürk.								
Course Code	Course Name	T	U	L	ECTS	K	Clock	Type.
HRT102	Professional Calculations	4	0	0	5	4	4	Compulsory
Map coordinate system. Basic homework assignments. Basic homework applications. Calculation of detail points. Surface area calculations. Surface area applications. Parcel divisions. Boundary corrections.								
Course Code	Course Name	T	U	L	ECTS	K	Clock	Type.
HRT104	Land Surveying-II	3	0	0	5	3	3	Compulsory
General structure of levels. Height systems, geometric leveling. Geometric leveling measurement and calculation. Trigonometric height measurement calculation. Takeometric height measurement calculation. Cross section measurement and calculations. Polygon points location selection, installation and surveying, polygon measurements. Open polygon crossings. Based connected polygon crossings. Closed polygon transitions.								
Course Code	Course Name	T	U	L	ECTS	K	Clock	Type.
HRT106	Land Surveying Application-II	1	2	0	5	2	3	Compulsory
Formation of field work groups, determination of assignment locations. Geometric leveling measurement application. Trigonometric height measurement application. Cross section measurement application. Polygon points location selection, installation and surveying. Making polygon measurements.								
Course Code	Course Name	T	U	L	ECTS	K	Clock	Type.
HRT108	Map Drawing-II	2	1	0	3	2	3	Compulsory
Professional software. Digitization processes. Drawing operations in standard format. Map drawing using CAD making Calculations. Zoning applications in CAD software. Infrastructure project applications in CAD software. To make longitudinal section drawing. To make cross-section drawing.								
Course Code	Course Name	T	U	L	ECTS	K	Clock	Type.
HRT118	Real Estate Valuation	2	0	0	4	2	2	Compulsory
Concepts related to real estate, real estate valuation. The importance of real estate valuation. Applications requiring real estate valuation in our country. Factors affecting the value of real estate. Real estate valuation methods: Comparison method. Real estate valuation methods: Cost method. Real estate valuation methods: Income method. Real estate valuation methods: Statistical method. Rural area valuation. Real estate appraisal expertise. Production and interpretation of value maps. Applications related to real estate valuations.								
Course Code	Course Name	T	U	L	ECTS	K	Clock	Type.
STJ102	Internship	0	0	0	10	0	0	Compulsory
To do the work given by the authorized personnel in the selected work area.								
Course Code	Course Name	T	U	L	ECTS	K	Clock	Type.
TDI102	Turkish Language II	2	0	0	2	2	2	Compulsory

Sentence information. Sentence types. Paragraph information, paragraph types, paragraph structure. Composition information. Speech-based (oral) expression types. Types of written expression. Good speech rules and examples. Official writings (resume, petition, report). Expression disorders.

Course Code	Course Name	T	U	L	ECTS	K	Clock	Type.
YDI102	Foreign Language II	2	0	0	2	2	2	Compulsory

Talking about clothes. Using comparative adjectives in English. Making and acting out dialogues about shopping. Talking about fashion. Describing people's physical and characteristic features. Using the phrases "to be like" and "to look like". Describing, writing and speaking about friends. Talking about tourist attractions. Using the modal verbs "can" and "can't" which means -ebilmek, -abilmek in Turkish. Analyzing listening passages and acquiring vocabulary about tourist attractions. Talking about places in the city. Use the sentence pattern "there is" and "there are" meaning "there is". Analyzing a reading text about the most popular places in the city and acquiring new vocabulary. Talking about vacation activities. Using the past tense. Analyzing a reading passage about the description of a hotel and learning new vocabulary. Talking about future plans. Using the future tense. Listening text about travel plans and doing exercises. Reading passage review about travel activities.

Course Code	Course Name	T	U	L	ECTS	K	Clock	Type.
HRT150	Professional Ethics	2	0	0	3	2	2	Elective

To examine the concepts of ethics and morality. To examine ethical systems. Playing a role in the formation of morality  
To examine the factors. To examine professional ethics. To examine the consequences of professional corruption and unethical behavior in professional life. To examine the concept of social responsibility.

Course Code	Course Name	T	U	L	ECTS	K	Clock	Type.
HRT152	Algorithm and Programming	2	1	0	3	3	3	Elective

Computer hardware. Computer networks. Computer programs. Data input and output statements. Comparison and routing commands. Loops. Array variables. Subprograms. Algorithms. Flow diagrams. Pocket calculators.

Course Code	Course Name	T	U	L	ECTS	K	Clock	Type.
HRT154	First Aid	2	0	0	3	2	2	Elective

Basic applications of first aid. First and second assessment. Basic life support in adults. Basic life support in children and infants. First aid in respiratory obstruction. External and internal bleeding. Wound and wound types. First aid in regional injuries, head and spine fractures. First aid in upper extremity fractures, dislocations and sprains. First aid in hip and lower extremity fractures, dislocations and sprains. First aid. First aid in diseases requiring emergency care. Poisoning, heat stroke, burns and frostbite.

Course Code	Course Name	T	U	L	ECTS	K	Clock	Type.
HRT156	Geographic Information Systems Applications	1	2	0	3	2	3	Elective

GIS, basic concepts, basic map information. Overview of ArcGIS technology. Examination of geographic data in ArcMap environment. Data display functions. Symbology, labeling and cartographic production in ArcMap. Querying and reporting of geographic data. Data entry in ArcMap. Other tools used in feature creation. ArcCatalog applications. Data transformation functions. Geodatabase functions. ArcToolbox and ModelBuilder.

Course Code	Course Name	T	U	L	ECTS	K	Clock	Type.
HRT158	Web Programming	1	2	0	3	2	3	Elective

Running scripts in Python. Defining data. Automating scripts with lists. Working with selections. Working with cursors. Working with geometry objects. Sharing scripts. Debugging scripts and handling runtime errors. Automating map production. Add-in logic with ArcGIS for Desktop. Program development, desktop add-in, program development climate, desktop add-in creation. ArcObject API, Visual Studio usage. Interactive interaction with maps, image exchange, data queries, commo box, add-in deployment, add-in security, code integrity.

Course Code	Course Name	T	U	L	ECTS	K	Clock	Type.
HRT160	Community Service Practices-I	1	2	0	3	2	3	Elective

Introducing the course content, reviewing the concepts related to society and society. The importance of community service practices. Determining the current problems of the society, discussing in which areas related to the society can be worked within the scope of this course. Preparing new projects to produce solutions for current problems of society. Community service practices today: Public institutions and non-governmental organizations. The importance of participating in scientific activities such as panels, conferences, congresses, symposiums as an audience, speaker or organizer. Volunteering in various projects within the framework of social responsibility. To gain basic knowledge and skills for the implementation of community service work in schools. Students to take part in a social project using their knowledge and experience. Project information: General

information about reporting.								
Course Code	Course Name	T	U	L	ECTS	K	Clock	Type.
HRT162	Research Methods and Ethics	2	0	0	3	2	2	Elective
<p>Science, research, scientific research concepts. Science and science ethics. The concept of research ethics and violations of research ethics, basic principles of research ethics. Scientific misconceptions, violations of publication ethics, authorship rights problems. Types of scientific research, problem statement, hypothesis, theory. Scientific research report content. Formal structure of the research report and language use in scientific text. Interpretation and report writing. Principles of scientific publication ethics. Scientific works and their types. How to use the internet, library and documentation centers. Ethical standards, legal limitations and software. Presentation and evaluation of research reports prepared by student groups.</p>								

### III. Semester

Course Code	Course Name	T	U	L	ECTS	K	Clock	Type.
HRT201	Real Estate Law	2	0	0	3	2	2	Compulsory
<p>Property law. Real estate ownership. Legal heirs. Distribution in inheritance. Land registry information system. Transactions in the land registry. Condominium ownership transactions. Condominium easement transactions. Transactions before expropriation. Expropriation technical procedures. Expropriation technical file preparation. Expropriation sample projects.</p>								
HRT203	Land Surveying III	3	0	0	3	3	3	Compulsory
<p>Country basic networks. Establishment, classification, numbering of network points. Establishment of elevation networks. Complementary network points. Calculations of shortcut points. Eccentric angle measurement. Centering elements, lowering to the ground. Map projections. Projection reductions. Two dimensional transformations. Two-dimensional transformation applications. Three dimensional coordinate systems.</p>								
HRT205	Land Surveying Practice-III	1	2	0	4	2	3	Compulsory
<p>Establishment, classification, numbering of network points. Establishment of elevation networks. Calculation and application of shortcut points. Application of eccentric angle measure. Centering applications. Ground reduction applications. Projection reductions applications. Two-dimensional transformations application. Application of three dimensional coordinate systems.</p>								
HRT207	Application	2	0	0	3	2	2	Compulsory
<p>Application concept, horizontal point application. Line application. Horizontal angle application. Height application. Three dimensional applications. Island and parcel application. Application of island and parcel application. Horizontal curve application. Horizontal curve application. Vertical curve application. Building application and TUS application. Application of infrastructure projects. Application applications of infrastructure projects.</p>								
HRT209	Road Information	2	1	0	4	3	3	Compulsory
<p>Introduction: Importance and history of roads, transportation systems and classification of roads, definitions related to highways. Road crossing survey. Survey of road crossing: Investigation of alternative routes with the help of zero polygon and zero polygon. Determination and approval of the final route. Coordinate calculations of the final route, horizontal curve calculations, drawing of road route plans. Cross-section and vertical curve calculations. Drawing the longitudinal section, control and approval of the red line on the longitudinal section. Determination of vertical curve lengths, calculation of vertical curve project elevations. Dever calculations and approval of the drawing. Cross-section calculations and control of cross-section area calculations. Volume calculations: Calculation of embankment and cut volumes. Brückner calculations: Drawing of Brückner eurface and calculation of bearing moments. Project submission and control.</p>								
HRT211	Cadastre-I	2	1	0	4	3	3	Compulsory
<p>General definition of cadastre. Cadastral technical operations. Delimitation process. Determination. Renewal cadastre. Surveying operations. Island report. Forest cadastre. Disaster cadastre. Pasture legislation. Underground cadastre.</p>								
Course	Course Name	T	U	L	ECTS	K	Clock	Type.

Code								
HRT213	Land Management	3	0	0	3	3	3	Compulsory
Zoning legislation. Definitions related to zoning. Optional zoning applications. Compulsory zoning applications. Zoning law legislation, land and land regulation. Implementation of reclamation zoning legislation. Land consolidation implementation. Coastal legislation applications. Licensed map offices and TUS applications.								
Course Code	Course Name	T	U	L	ECTS	K	Clock	Type.
HRT251	Computer Aided Map Drawing	2	1	0	3	3	3	Elective
Introduction of Netcad Program. Calculation and Drawing with Polar Measurements. Calculation and Drawing with Polar Measures. Calculation and Drawing with Orthogonal Measures. Calculation and Drawing with Orthogonal Measures. Takeometric Calculus. Takeotric Calculus. Digitization. Polygon Calculation.								
Course Code	Course Name	T	U	L	ECTS	K	Clock	Type.
HRT253	Cartography Activities	3	0	0	3	3	3	Elective
Introduction of cartography profession. Introduction of the institutions where cartographers work. Cartography activities in municipalities. Cartography activities in KBS. Cartography activities in TRGM. Introduction of the institutions where cartographers work. History of Turkish cartography. Cartography activities in the valuation sector. Problems and solutions of cartography profession. GIS and cartography activities. HKMO and cartography. Duty areas of cartographers.								
Course Code	Course Name	T	U	L	ECTS	K	Clock	Type.
HRT217	Business Management-I	3	0	0	3	3	3	Elective
To follow microeconomic data. Analyze macroeconomic indicators. Identify gaps in the market. Evaluating investment alternatives and selecting the most appropriate one. Conducting feasibility studies. Recognizing the environment of the business. To analyze and forecast demand. To determine the place of establishment of the business. To determine the legal structure of the business. To determine the capacity of the workplace. To provide financing by determining the total investment cost. To make the estimated income-expense account. To make workplace and production plan. To carry out the installation procedures of the investment. To create the appropriate structure and open the workplace.								
Course Code	Course Name	T	U	L	ECTS	K	Clock	Type.
HRT229	Spatial Analysis in Geographic Information Systems-I	1	2	0	3	2	3	Elective
GIS and spatial analysis. ArcGIS 3D analysis module and its capabilities. Digital elevation models. Surface analysis and data transformations. Working with LIDAR and Terrain data. 3D modeling (ArcScene- ArcGlobe). ArcGIS Spatial analysis module and its capabilities. Distance and density analysis. Interpolation. Statistical analysis. Reclassification and registration of raster data.								
Course Code	Course Name	T	U	L	ECTS	K	Clock	Type.
HRT231	Remote Sensing	2	0	0	3	2	2	Compulsory
Introduction to remote sensing. Electromagnetic energy and its properties. Passive sensors. Active sensors. Platforms. Image and its properties. Image correction. Image enhancement and interpretation. Image classification and accuracy determination. GIS and remote sensing relationship. Satellites and their properties. Remote sensing software. Remote sensing applications.								
Course Code	Course Name	T	U	L	ECTS	K	Clock	Type.
HRT233	Professional Foreign Language-I	2	0	0	3	2	2	Elective
Repetition of general English knowledge that will form the basis of professional foreign language competencies by updating. Professional terms, concepts and terminology. Inheritance law, property law, expropriation law. Land consolidation. Zoning plan implementation. Land and land regulation procedures. Map, scale, plan, special maps, sketch. Cadastre, parcel, island, land, title deed, ownership, land, land registry. Photogrammetry. Aerial photogrammetry. Digital photogrammetry. Orthophoto. Close-up photogrammetry. Terrestrial photogrammetry. Image processing. Photogrammetric maps. Computer. Computer aided map drawing, base, CAD software. Engineering surveys, deformation, underground surveys, industrial surveys. Elevation, height measurements, elevation, leveling. Measurement information, polygon, triangulation.								

#### IV. Semester

Course Code	Course Name	T	U	L	ECTS	K	Clock	Type.
HRT202	Vocational Education in Business	5	20	0	30	15	25	Elective

Monitoring workplace orientation. Discussing possible project topics with students. Exchange of information about workplace project opportunities with the workplace advisor Workplace visit and determination of the project topic. Preparation of the academic advisor visit report. Evaluation of the project management plan. Evaluation of the sector consultant report. Evaluation of the student interim report. Coordination meeting of the applied workplace training program. Workplace visit. Preparation of sector advisor and academic advisor evaluation forms. Preparation of academic advisor visit report. Reporting the results. Organizing project presentations.								
Course Code	Course Name	T	U	L	ECTS	K	Clock	Type.
HRT250	Cadastre-II	3	0	0	5	3	3	Elective
Map plan example. To show the parcel in place. Merging operations. Type change procedures. Establishment of easement right. Correction procedures in cadastre. Separation operations. Acquisition from the road, abandonment to the road. Parcelization. Delimitation maps. Expropriation maps. Control of expropriation maps.								
Course Code	Course Name	T	U	L	ECTS	K	Clock	Type.
HRT252	Land Surveying-IV	2	2	0	5	3	4	Elective
GNSS measurement methods. Coordinate measurements with GNSS. GNSS applications. Underground surveys. Hydrographic surveys. Deformation measurements. Industrial surveys. Utilization of maps. Direction concept and direction finding.								
Course Code	Course Name	T	U	L	ECTS	K	Clock	Type.
HRT254	Map Making	2	3	0	5	4	5	Elective
Preliminary preparation and planning. To make point establishment operations. To make measurement operations. To make calculation operations. To make drawing operations. To make filing. Creating an archive.								
Course Code	Course Name	T	U	L	ECTS	K	Clock	Type.
HRT256	Land Management Practice	0	3	0	5	2	3	Elective
Zoning legislation. Definitions related to zoning. Article 18 application. Project control and submission.								
Course Code	Course Name	T	U	L	ECTS	K	Clock	Type.
HRT258	Public Surveying	3	0	0	5	3	3	Elective
Introduction: Definition and purpose of land consolidation and agricultural structure in Turkey. Benefits and methods of land consolidation. Compulsory land consolidation according to Law No. 3083. Making preliminary studies: Preliminary meeting with landowners (optional consolidation), Cadastral procedures, Determination of project area boundaries, Preparation of AT-1 and AT-2 lists, Obtaining consent from landowners, Preparation of preliminary survey report, Obtaining the decision of the Council of Ministers. Determination of fixed facilities. Finding the share of participation in common facilities, preparation of the planning report. Soil surveys and grading of land, preparation of conversion coefficients table. Planning: Announcement of the arrangement area and annotation to the title deed, Determination of the current status of the project area, Conducting property surveys. Project data collection. Project work. Reporting of project results.								
Course Code	Course Name	T	U	L	ECTS	K	Clock	Type.
HRT260	Photogrammetry	2	0	0	5	2	2	Elective
Definition, scope, history, application areas, classification of photogrammetry. Projective and perspective projection geometry. Internal and external orientation elements of camera and pictures. Scale in photographs. Projective projections of point, line and plane. Coordinate systems in photogrammetry. Photogrammetric cameras. Analog and digital images. Distortion errors in cameras and mathematical models. Collinearity and coplanarity relations. Perspective distortions in images. Elimination of perspective errors in a single image. Errors caused by height differences and their elimination. Error theory of the normal state, position and height sensitivity. Planning a photo shoot. Vanishing point in images and Geometry of escape planes. Image rectification with escape point. Examples of photogrammetric applications with single image.								
Course Code	Course Name	T	U	L	ECTS	K	Clock	Type.
HRT262	Quality Assurance and Standards	3	0	0	5	3	3	Elective
Quality concept. Standard and standardization. The importance of standard in production and service sector. Management quality and standards. Environmental standards. Quality management system models. Strategic management. Participation Process management system. Resource management system. Efqm excellence model. Quality control in production. Inspection and sampling. Total quality control. Control diagrams. Statistical								

distributions.								
Course Code	Course Name	T	U	L	ECTS	K	Clock	Type.
HRT264	Professional Foreign Language-II	2	0	0	5	2	2	Elective
Written and oral communication on professional issues. GPS, GIS, TUTGA, TUSAGA - Active. Cartography, latitude, longitude, plot index. Coordinate, coordinate systems. UTM, Gauss Kruger projection. Astronomy, celestial sphere, earth. Remote sensing, satellite, orbit, satellite image. Instrument knowledge, jalon, plumb line, level, electronic rangefinder, GPS, mira. Road, cross section, long section, volume calculation, face measurement, calculations, profile. Es height curve, leveling curve, isohypsography curves. Forest, disaster, pasture, soil protection, parceling. Hydrography, coastal edge lines, coastline.								
Course Code	Course Name	T	U	L	ECTS	K	Clock	Type.
HRT266	Spatial Analysis in Geographic Information Systems-II	1	2	0	5	2	3	Elective
ArcGIS network analysis module and its capabilities. Network dataset creation. Creating multimodal (multiple) network dataset. Optimal route analysis using network dataset. Nearest facility finding analysis. Service area identification and cost matrix creation. Designing a sample model for route analysis. Customer demands and fleet management. Finding the optimal route for health services and managing vehicles. Optimum store location. Organizing and using live traffic data on network dataset. Some constraint rules and network analysis. ArcGIS Geostatistical analysis module and its capabilities.								
Course Code	Course Name	T	U	L	ECTS	K	Clock	Type.
HRT268	Web Geographic Information Systems	1	2	0	5	2	3	Elective
Cloud Computing. Cloud Computing and Geographic Information Systems (GIS). Online sharing of GIS resources. Ready-to-use content management. Creating web applications using ArcGIS Online. Layers, maps and applications in Web GIS. Hosted Feature layers and volunteered geographic information. Story Maps and configurable applications. Web AppBuilder for ArcGIS. Map with ArcGIS for Server publishing services. Spatial analysis and Geoprocessing services. Mobile GIS and real-time GIS. 3D Web Scenes.								
Course Code	Course Name	T	U	L	ECTS	K	Clock	Type.
HRT270	Hydrographic Measurements	3	0	0	5	3	3	Elective
Introduction: Subject of hydrographic surveying, history, general definitions. Underwater Maps: Classification of underwater maps. Hydrographic Maps: Hydrographic maps and general characteristics. Coastal Surveys: Vertical datum, mareographs, site selection for mareographs. Mareograph Stations: Mareograph stations in Turkey and vertical datum determination studies. Depth Measurements (sounding): Classification of depth measurement methods. Depth Measurements (Sounding): Depth measurements and evaluation of lath and rope sounding methods. Depth Measurements (Sounding): Depth measurements and evaluation with hydrostatic and thermometric methods. Depth Measurements (Sounding): Acoustic and lidar depth measurements and their evaluation. Geodetic Points: Geodetic points on land and water. Position Measurements: Classification of position measurements, measuring instruments. Location Measurements: Classical methods applied in position surveying. Measurement with lidar and side scan sonar techniques, current applications.								
Course Code	Course Name	T	U	L	ECTS	K	Clock	Type.
HRT272	Community Service Practices II	1	2	0	5	2	3	Elective
Introducing the course content, reviewing the concepts related to society and society. The importance of community service practices. Determining the current problems of the society, discussing in which areas related to the society can be worked within the scope of this course. Preparing new projects to produce solutions for current problems of society. Community service practices today: Public institutions and non-governmental organizations. The importance of participating in scientific activities such as panels, conferences, congresses, symposiums as an audience, speaker or organizer. Volunteering in various projects within the framework of social responsibility. To gain basic knowledge and skills for the implementation of community service work in schools. Students to take part in a social project using their knowledge and experience. Project information: General information about reporting.								
Course Code	Course Name	T	U	L	ECTS	K	Clock	Type.
HRT274	Business Management-II	3	0	0	5	3	3	Elective
Planning. Organizing. Directing. Providing coordination. To supervise. Ensuring job analysis. Planning human resources. Finding employee candidates. Selecting employees. Providing orientation training.								

Evaluating employee performance. Ensuring that the employee is trained. Career planning. Job evaluation. Remuneration. Planning production. Organizing for the realization of production. Capacity and inventory planning. Determining the target market. Product development. Determining pricing policies. Determining promotion policies. Determining distribution policies. Managing customer relations. Managing income and expense accounts. Managing debts and receivables. Managing assets. Managing resources.

<b>Course Code</b>	<b>Course Name</b>	<b>T</b>	<b>U</b>	<b>L</b>	<b>ECTS</b>	<b>K</b>	<b>Clock</b>	<b>Type.</b>
<b>HRT276</b>	Basic Law	2	0	0	5	2	2	Elective

Basic concepts of law. The system of law. Definition and types of right. Real persons. Legal personality. Family law. Law of obligations. Public officials. Protection of human rights.